Inventors: Pan Ki Kwon and Sang Ick Lee
Title: Methods for Manufacturing Contact Plugs for

Semiconductor Devices

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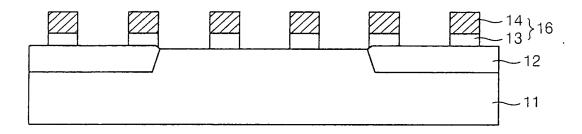


Fig.1a (prior art)

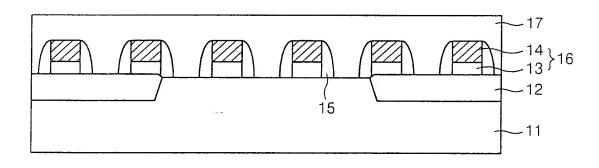


Fig.1b (prior art)

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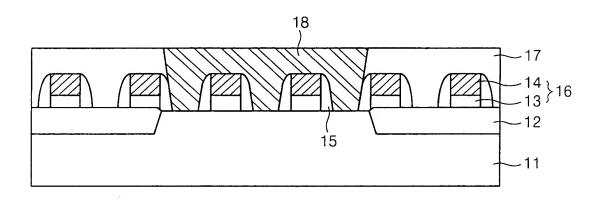


Fig.1c (prior art)

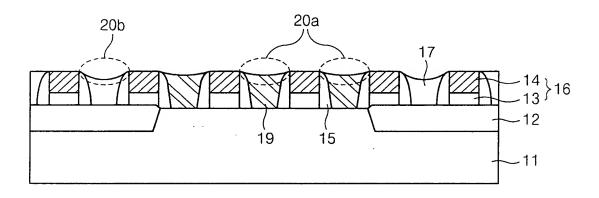


Fig.1d (prior art)

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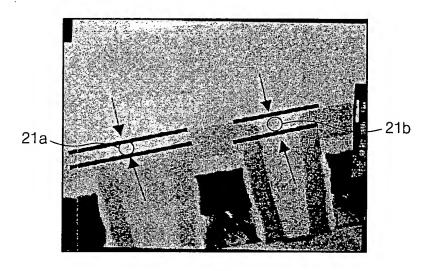


Fig.2a (prior art)

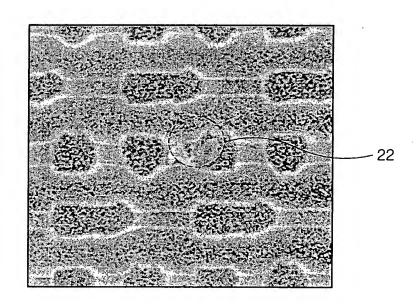


Fig.2b (prior art)

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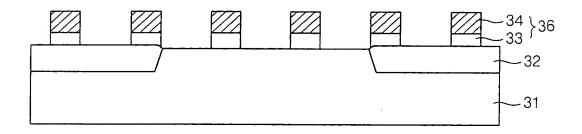


Fig.3a

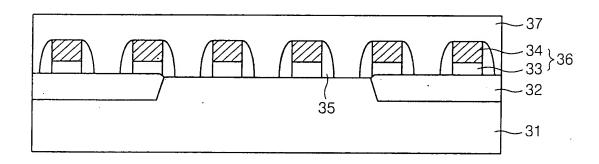


Fig.3b

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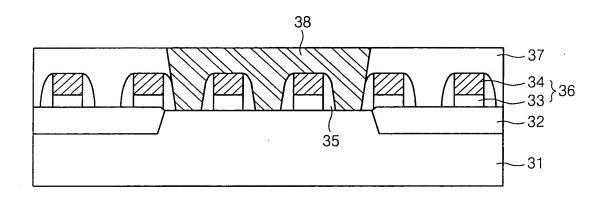


Fig.3c

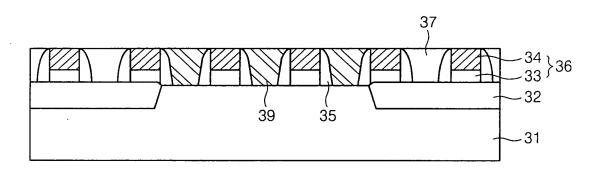


Fig.3d

Inventors: Pan Ki Kwon and Sang Ick Lee
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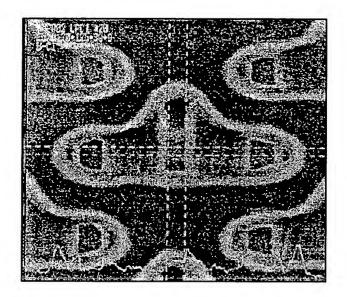


Fig.4a



Fig.4b

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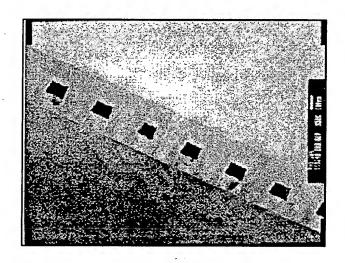


Fig.5a

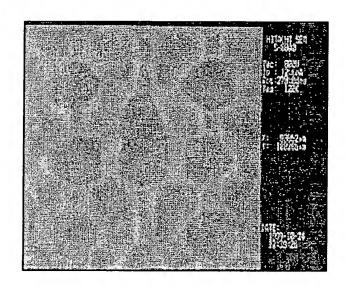


Fig.5b

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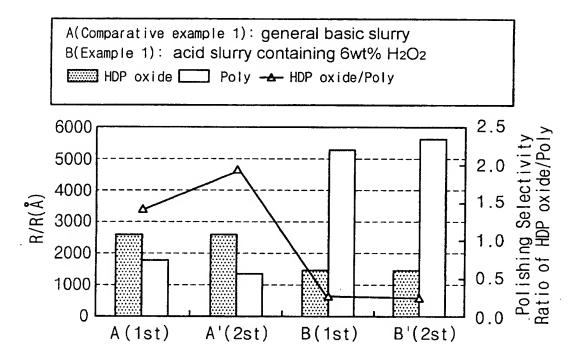


Fig.6